DOCUMENT RESUME

ED 110 354 SO 008 349

AUTHOR Leming, James S.
TITLE An Exploratory Inquiry into the Multi-Factor Theory of Moral Behavior Applied to Values Education.
PUB DATE 75
NOTE 22p.; A paper prepared for the Annual Meeting of the American Educational Research Association (Washington, D. C., April, 1975)

EDRS PRICE MF-$0.76 HC-$1.58 PLUS POSTAGE
DESCRIPTORS Correlation; *Educational Research; *Moral Development; Moral Values; *Multiple Regression Analysis; *Predictor Variables; Research; Research Methodology; Statistical Analysis; *Values

ABSTRACT

Reported research uses stepwise multiple regression analyses to generate regression equations for 60 school age subjects with choice of right action and stage of moral reasoning on moral dilemmas as the dependent variables. Age, IQ, socioeconomic status, awareness of consequences, empathy, and mean moral maturity scores were used as predictor variables. The purpose of the research was to find which, if any, of the independent variables identified are statistically significant predictors of stage of moral reasoning and choice of right action, and what portion of the variance in the dependent variables is explained by the successive contribution of the independent variable. Stage of moral reasoning was assessed on four separate clusters of moral dilemmas using an interview schedule, tape recording, and scoring of transcript according to procedures developed by Kohlberg. Choice of right action was determined by asking the subjects the right thing to do in each moral dilemma. Results showed that, although the amounts of variance explained were small, age and empathy were the primary predictors for stage of moral reasoning and biographic variables were the primary predictor variables for choice on moral dilemmas. Implications of the findings for further research and curriculum are discussed. Tables and references are included. (KSM)

****
* Documents acquired by ERIC include many informal unpublished *
* materials not available from other sources. ERIC makes every effort *
* to obtain the best copy available. nevertheless, items of marginal *
* reproducibility are often encountered and this affects the quality *
* of the microfiche and hardcopy reproductions ERIC makes available *
* via the ERIC Document Reproduction Service (EDRS). EDRS is not *
* responsible for the quality of the original document. Reproductions *
* supplied by EDRS are the best that can be made from the original. *
****

ED110354

SP008249

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

An Exploratory Inquiry into the Multi-factor Theory of Moral Behavior applied to Values Education

James S. Leming
Assistant Professor
Department of Education
State University of New York
at Stony Brook
Stony Brook, New York 11794

Paper presented March 31, 1975
Social Studies Special Interest Group
American Educational Research Association
Annual Meeting: Washington D.C.

00002

ABSTRACT

Using step-wise multiple regression analyses regression equations were generated for sixty school age subjects with choice and stage of moral reasoning on moral dilemmas as the dependent variables. Age, IQ, SES, awareness of consequences, empathy, and selected mean moral maturity scores were used as the predictor variables. It was found, although the amounts of total variance explained were small (.392), that age and empathy were the primary predictors for stage of moral reasoning and the biographical varibles (IQ, -SES, age) were the primary predictor variables for choice on moral dilemmas. The implications of the findings for further research and curriculum were discussed.

An Exploratory Inquiry into the Multi-factor Theory of Moral Behavior applied to Values Education

James S. Leming

A key problem facing social studies research in the future is the correct identification and assessment of the important variables in peoples' reasoning about value issues. That is, what are the key aspects of reasoning about value questions that when isolated account for significant variations in peoples' reasoning or behavior. Most of the previous research in this area has focused exclusively on single aspects of individuals' reasoning such as knowledge of moral rules, stage of moral development, choices or actions in moral situations, and the nature of knowledge about moral concepts. This unidimensional approach, although yielding some encouraging data in support of particular curricular programs, has done little to advance basic knowledge about the complex phenomena of making moral decisions.

Of all the previous research in the area of moral reasoning the work of Lawrence Kohlberg (1963, 1971) is the most philosophically and psychologically well grounded. However, Kohlberg's studies focus on a unidimensional view of moral reasoning, namely stage of moral development as derived from the subject's rational formulation of rules or decision making procedures used in resolving moral dilemmas. A number of philosophers such as Peters (1971), Alston (1971) and Wilson (1967) have argued that Kohlberg's description of moral reasoning is an overly simple view of the phenomena of moral behavior. The general point of view of these critics is that we cannot fully understand the phenomena of moral behavior unless we study the entire range of factors of which it is comprised.

John Wilson (1973) has presented an insightful and rich phenomenological analysis of the factors comprising moral behavior. At this point little research has been completed utilizing this perspective. Presently the work of Wilson and others in this area is largely concerned with conceptual questions and the devising of means of assessment. Wilson's most recent formulation of the factors comprising moral behavior is presented in Table 1.

Table 1
List of Moral Factors-
after Wilson (1973).

PHIL	having a clear concept of a 'person' or the 'other,' in the sense demanded by morality, claiming that this concept is a reason that ought to influence him, and having rule-supporting feelings
EMP	having the concepts of emotion and being able to identify one's own emotions (conscious and unconscious) and other people's (conscious and unconscious)
GIG	knowing relevant 'hard facts' and sources of facts and 'knowing how': non-propositional skills in dealing with people (eg saying the right thing when apologizing)
KRAT (1)	bringing to bear the previous components when S is actually forced with the need for decision and action-involves the rational formulation and use of moral principles or rules
KRAT (2)	the capacity to carry through one's decisions into actions

According to Wilson PHIL plus EMP plus GIG plus KRAT (1) lead to right decision: right decision plus KRAT (2) lead to right action. Wilson's actual detailed analyses contains many sub-divisions of the above factors, however, this sketch is sufficient to show the direction to be followed in this exploratory inquiry.

Step-wise multiple regression analyses were used to examine the successive contribution of independent variables to the prediction of dependent variables. Two separate sets of regression equations were generated around two dependent variables: stage of moral reasoning and choice of right action on moral dilemmas. EMP, GIG, KRAT (1), SES, IQ, and age were used as predictor variables. The questions being asked were, "Which, if any, of the independent variables identified are statistically significant predictors of stage of moral reasoning and choice of right action?" and, "What portion of the variance in the dependent variables is explained by the successive contribution of the independent variables?"

METHOD

Dependent variables

Two separate dependent variables were used in this study: stage of moral reasoning and choice of right action. Stage of moral reasoning was assessed on four separate clusters of moral dilemmas. Distinctions were drawn between the type of situation reasoned about and the mode of moral reasoning used. Dilemmas can vary according to whether the context of the action to be evaluated is one which the subject is familiar (within his life space) or one with whch he is highly unlikely to ever had have experienced. The former type of dilemma will be called practical moral dilemmas and the latter will be called classical moral dilemmas. It is also possible to vary the type of questions one asks about the dilemmas. One can ask subjects to evaluate an already completed action (judgment) or one can ask the subjects what he would do if he were in the situation (deliberation). This distinction will be referred as the mode of moral reasoning. These two differentations within the domain of moral reasoning generate the four forms of moral reasoning on which the subjects stage of moral reasoning was assessed (see Table 3). Further information concerning the theory behind these distinctions and how the dilemmas were devised can be found in Leming (1973).

The Kohlberg method of assessing stage of moral reasoning involves interviewing the subjects on moral dilemmas using a semi-structured interview schedule, tape recording, and finally scoring the transcript according to procedures developed by Kohlberg (1972). As a result of the scoring procedures the subjects are assigned to one of the six stages of moral development.

Table 2

Definition of Moral Stages

I. Preconventional Level: At this level the child is responsive to cultural rules and labels of good and bad, right or wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action (punishment, reward, exchange of favors), or in terms of the physical power of those who enunciate the rules and labels.

Stage 1: The punishment and obedience orientation. The physical consequences of action determine its goodness or badness regardless of the human meaning or value of these consequences.

Stage 2: The instrumental relativist orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place. Reciprocity is a matter of "you scratch my back and I'll scratch yours," not of loyalty, gratitude or justice.

II. Conventional Level: At this level maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order, and of identifying with the persons or group involved in it.

Stage 3: The interpersonal concordance or "good boy-nice girl" orientation. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority or "natural" behavior. Behavior is frequently judged by intention - "he means well" becomes important for the first time. One earns approval by being "nice."

Stage 4: The "law and order" orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority, and maintaining the given social order for its own sake.

III. Postconventional, Autonomous, or Principled Level: At this level there is a clear effort to define moral values and principles which have validity and application apart from the authority of the groups or persons holding these principles, and apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation, generally with utilitarian overtones. Right action tends to be defined in terms of general individual rights, and standards which have been critically examined and agreed upon by the whole society. There is a clear awareness of the relativism of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. This is the "official" morality of the American government and constitution.

Stage 6: The universal ethical principle orientation. Right is defined by the decision of conscience in accord with self-chosen ethical principles appealing to logical comprehensiveness, universality, and consistency. At heart, these are universal principles of justice, of the reciprocity and equality of human rights, and of respect for the dignity of human beings as individual persons.[1] (Adopted from Kohlberg, 1971).

The standard Kohlberg dilemmas and interview schedules measure what has been identified above as moral judgment on classical moral dilemmas. The three Kohlberg dilemmas used were Heinz, Joe and his father, and Alexander.

In order to assess differences in moral reasoning due to mode of reasoning and type of situation reasoned about it was necessary to develop alternative moral dilemmas and interview schedules. A series of practical moral dilemmas was developed which contained moral conflict situations likely to be found within the life space of the prospective subjects. A questionaire was given to 186 seventh and twelfth grade students asking them to identify or suggest moral conflict situations with which they were familiar. From the situations most frequently identified a set of six pilot dilemmas was created. A final selection of three practical moral dilemmas was made on the basis of the results of a pilot study. A typical practical moral dilemma was the "Party" dilemma. In this dilemma a girl's parents have denied her permission to go to a friend's party. The girl's best friends were expected to be there so she told her parents that she was going to a movie and went to the party anyway. The other two practical moral dilemmas dealt with the issues of cheating (the Assignment dilemma) and her peer group conflict (the Group dilemma). An interview schedule was developed for the practical dilemmas to assess the subject stage of moral reasoning in the judgment mode.

In addition to measuring the subjects' moral reasoning in the judgment mode on the classical and practical dilemmas it was also necessary to measure their moral reasoning in the deliberation mode on the same sets of dilemmas. In order to accomplish this it was necessary to reword both the classical and practical dilemmas so that they were now worded in the present tense and the moral choice in the dilemma was still open and unstated. For example, in the Heinz dilemma it was necessary to rewirte the dilemma in such a way that the subject was asked to

consider a situation where his loved one is dying of cancer, he can't raise the money, and the choice offered is whether or not he would steal the drug to save his loved one's life. In sum there were four sets of dilemmas and interview schedules on which the subject's stage of moral reasoning was assessed.

TABLE THREE
FORMS OF MORAL REASONING

Form	components of form	
	mode of moral reasoning	type of situation
MJCMD	moral judgment (MJ)	classical moral dilemma (CMD)
MDCMD	moral deliberation (MD)	classical moral dilemma (CMD)
MJPMD	moral judgment (MJ)	practical moral dilemma (PMD)
MDPMD	moral deliberation (MD)	practical moral dilemma (PMD)

After each dilemma the subjects were asked to respond on a five point scale to the statement, "In my life situations like this one are familiar." It was found that significantly more subjects ($p < .05$) agreed with this statement after discussing practical moral dilemmas than agreed with it after discussing classical moral dilemmas.

Choice of right action was determined by asking the subjects what the right thing to do was in each moral dilemma.

The choice which the subjects selected as the best, right, or moral thing to do, was quantified by using the solution proposed or hinted at in the description of the dilemma as the high end of a three point scale (2-1-0). For example, in the Party dilemma Mary defied her parents and went to the party anyway. If the subject said what Mary did was right, then he would be assigned a point value of 2. A value of 1 denotes uncertainty on the part of the subjects and a zero of the opposite of the choice presented in the dilemma.

Independent variables

Two of the factors described by Wilson were selected to serve as independent variables. The factors chosen were awareness of consequences (AC) - a variation on GIG - and empathy (EMP).

In assessing AC and EMP the author wanted to avoid measuring some abstract ability and then incorrectly inferring that because a subject has the ability in the abstract that it was then operative in the reasoning being studied. Hence it was decided to measure EMP and AC in context.

In the pilot study, the attempt was made to identify both AC and EMP within the body of the standard Kohlberg interview. It proved difficult to distinguish between subjects once AC and EMP statements were identified. Statements classifiable as AC or EMP arose in such a variety of settings during the interview that factors other than the subject's ability in this area appeared as important as his ability in AC or EMP. As a result, it was decided to establish a separate set of questions which would be constant for all subjects and would allow one to come up with a measure of the subject's ability in AC and EMP for each dilemma.

At the end of interviewing each subject on each pair of dilemmas (i.e., the judgment and deliberation forms), he was asked to describe what he though would happen as a result of two opposite course of action concerning the main character in the dilemmas. For example: "What do you think would probably happen in Heinz steals/doesn't steal the drug?" The subject was also asked to describe what he

thought the impact on the feelings of the people involved would be, given two opposite coursesof action.

The scoring on the variable AC was done simply and directly. In response to the question, "What do you think would probably happen if..." the scorer counted the number of possible distinct results that the subject listed. For example: "My father would probably take it away from me cause he needed it badly for a fishing trip" would be scored as "1" since it describes only one event. On the other hand, "He wouldn't get his money back and they'd just fall apart and wouldn't be very friendly and everything. The son would probably be rebellious would be scored as "3" since the results are seen as: (1) won't get the money back; (2) relationship disintegrating; and (3) rebellious attitude of son.

The scoring on EMP was done on the basis of two criteria: (1) number of people seen as having their feelings affected, and (2) number of emotional states described. One person with one emotional state would be scored "1" and one person and two emotional states scored "2". Two people with one emotional state each would be scored "2" also. An example of how this scoring was done is as follows. "Well, she wouldn't return the favor to her father " would be scored as "0" for, in response to the question, he doesn't really describe an emotional state. "I'd feel good on my side because here I gave up my money..." would be scored "1", while "The kid would be sad that he gave it to him, but he couldn't go to camp. After he did give him the money, he'd be kind of proud that he did" would be scored as "2" since it describes two emotional states of one person.

In order to ascertain reliability, ten interviews were drawn at random and scored by a second scorer. If the means on AC and EMP across all dilemmas were within 0.5 for each story, this was considred as agreement. The reliability for the ten subjects AC and EMP scores between the two scorers was 90 percent.

Three sources of biographical data were also included as independent variables: SES, IQ, and age. IQ scores were obtained from existing school records. SES was quantified by assigning all subjects a point value between 3 and 9 based on the sum of points from information supplied by the subjects concerning parents' occupation, salary, and education level.

In addition to the above independent variables the subjects' stage of moral development-which earlier had been identified as one of the dependent variables-was used as an independent variable in the equations which attempted to predict choice.

Subjects

The sample in this study consisted of 60 public school students randomly selected from two middle schools and two high schools in a white suburban area. At the time of the interviews thirty of the subjects had just completed seventh grade and thirty of the subjects had just completed eleventh grade. Equal numbers of boys and girls were present in the sample.

Procedure

The interviews took place in July and August of 1972 at two of the local school buildings. The subjects were interviewed on twelve different dilemmas, three within each of the four forms of moral reasoning. The interviews took between two and three hours for each subject. Two ten minute breaks were given and the order in which the dilemmas was presented to each subject was randomly determined in order to eliminate any fatigue effect. Each interview was tape recorded and then transcribed.

Scoring

The transcripts of the interviews were scored according to procedures outlined by Kohlberg (1972). Scoring was organized by form which resulted in four stage scores for each subject. It is possible to report stage of moral reasoning scores

as either global scores or as mean moral maturity scores. The global score is a modal score and the subject is classified as either a pure stage or a mixed stage. For ease of statistical computation this study used the subjects' mean moral maturity scores.

The mean moral maturity score (MMS) is ascertained by identifying stage scoreable responses by issues within the transcripts of individual dilemmas. Issues are defined by Kohlberg (1972) as "defining the concrete objects of concern or value to the subject in the situation. Secondly they are the things to be defined and chosen between in the situation, they define the moral conflict...(p.12)." Once the stage scores for all the scorable responses within the form have been determin issue stage scores for the form are computed by procedures outlined by Kohlberg (1972). For every issue stage score within a form a point value is then assigned. The point value is based on a ratio of 3:2:1 depending upon whether the stage score was circled (most salient issue for resolving the dilemma), uncircled (ascertained with a high degree of certainty), or question-marked (ascertained with a low degree of certainty). Next a percent score was figured for each stage present in the subjects' reasoning based on the total points assigned. The percent score was then multipled by the number representing the stage. When summed the results yielded scores ranging from 100 (100% at stage one) to 600 (100% at stage six).

In order to obtain a reliability score it was necessary to hire and train a graduate student in education. The reliability scorer evaluated the responses of ten randomly selected transcripts. A product-moment correlation coefficient was computed between the two scorers MMS's on the individual forms. Using this procedure the correlation coefficients for the ten subjects on the separate forms was: MJCMD (.88), MDCMD (.79), MJPMD (.88), and MDPMD (.80).

Statistical analysis

In the regression equations it was decided to use a step-wise multiple regression analysis to examine the contribution of successive independent variables in the development of regression equations to predict the dependent variable. Standard proceudres of step-wise regression was used. The first independent (predictor) variable selected was the one that correlated the highest with the dependent variable; the next variable added was the one that, in concert with the first, best predicted the dependent variable, and so on. Each successive predictor variable that was added provided the greatest reduction in the error sum of squares; that is, it was the variable that had the highest partial correlations with the dependent variable, partialed on the independent variables already in the equation. The level of significance for inclusion in the regression equations was selected as $p < .05$.

RESULTS

Only two of the four sets of dilemmas yielded statistically significant ($p. < .05$) regression equations attempting to predict the first of the dependent variables-stage of moral reasoning (MMS).

The results of the first multiple regression analysis are reported in Table 4. In Tables 4 and 5 the letter R refers to the coefficient of multiple correlation and the symbol R^2 refers to the coefficient of determination or the amount of total variance explained.

Table 4

Multiple Regression Analysis Showing the Relationship of Level of Moral Reasoning on the Four Forms of Moral Reasoning to the Biograpical Varibles and the Primary Moral Variables

Variable	Type	Regression Coefficient	R	R^2	Change in R^2
MMS on MJCMD	Dependent				
	Constant	115.90			
AGE	Independent	.277	.288	.083	
EMP	Independent	.275	.398	.159	.076
MMS on MDCMD	Dependent				
	Constant	135.00			
AGE	Independent	.325	.335	.112	
EMP	Independent	.247	.417	.174	.061

Age (.083) combined with EMP (.076) to explain .159 of the total variance in MMS on MJCMD. Age (.112) and EMP (.061) combined to explain .174 of the total variance in MMS on MDCMD. Although no significant regression equations were generated with MMS on either MJPMD or MDPMD there were significant correlations with single variables which allow .05 of the variance in MJPMD to be predicted by EMP and .11 of the variance in MDPMD to be explained by AC.

Thus the age and empathy were the only predictor variables for stage of moral reasoning on classical moral dilemmas. In the judgment mode on the practical moral dilemmas empathy was the only variable that was significantly associated with stage of moral reasoning. The only casewhere awareness of consequences was a significant predictor was in the case of deliberation on practical moral dilemmas- the form of reasoning nearest real life reasoning. In the subjects studied, greater empathy was displayed on the classical moral dilemmas than on the practical dilemmas. The mean EMP score on the CMDs was 8.9. The mean EMP score on the PMDs was 6.1. This difference was significant beyond the .05 level. This finding was somewhat confusingsince one would assume that in familiar situations one would have a greater sense of the possible affective impacts of ones actions. This expectation was not borne out by evidence.

An additional question one can ask of the data on stage of moral reasoning is what portion of the variance in the three new forms of moral reasoning studied in this experiment (MDCMD, MJPMD and MDPMD) is explained by Kohlberg's standard means of measuring moral reasoning (MJCMD). It was found that the variance in MJCMD explained .64, .48, and .39 of the variance in MDCMD, MJPMD and MDPMD respectively. None of the other variables reported above when entered into regression equations along with MMS or MJCMD explained more that .05 of the total explained variance in the stage of moral reasoning on the other three forms of moral reasoning.

The second set of regression equations centered around the subjects' choices of right action in resolving the moral dilemmas. There were a possibility of twelve multiple regression equations around choice. There were six different dilemmas, three classical and three practical, which could either be in the judgment mode or the deliberation mode. In two of the six classical moral dilemmas statistically significant regression equations were generated.

On the practical dilemmas three of the six dilemmas yielded significant equations explaining choice. The results of these equations are reported in Table 5.

TABLE 5

Multiple Regression on Choice - Classical & Practical Moral Dilemmas

Variable	Type	Regression Coefficient	R	R^2	Change in R^2
Classical Moral Dilemmas					
Choice/Alex/MD	Dept.				
	Constant	-.739			
Age	Indep.	.222	.231	.054	
EMP	Indep.	.218	.318	.101	.048
Choice/Heinz/MD	Dept.				
	Constant	-.923			
Age	Indep.	.450	.438	.192	
EMP	Indep.	-.296	.528	.279	.088
Practical Moral Dilemmas					
Choice/Party/MD	Dept.				
	Constant	-1.943			
IQ	Indep.	.386	.347	.121	
Age	Indep.	.354	.479	.229	.108
MMS-MDPMD	Indep.	-.216	.524	.274	.045
Choice/Assignment/MJ	Dept.				
	Constant	.852			
MMS-MJPMD	Indep.	-.334	.312	.097	
SES	Indep.	.299	.431	.186	.089
Choice/Assignment/MD	Dept.				
	Constant	.019			
SES	Indep.	.309	.587	.345	
MMS-MDPMD	Indep.	-.221	.626	.392	.047

In both classical moral dilemmas age and EMP were the only two predictor variables. In the case of the Heinz dilemma (MD) age contributed .192 and EMP .088 to the total explained variance of .279.

On the three practical moral dilemmas the total explained variance is followed by the portion explained by each of the predictor variables: .274 = IQ (.121) + Age (.108) + MMS-MDPMD (.045); .186 + MMS-MJPMD (.097) + SES (.089); .392 = SES (.345) + MMS-PMD (.047).

DISCUSSION

The finding that the predictor variables predicted only a small portion of the total variance in the dependent variables puts limitations on any inferences drawn from this study. Since a maximum of only 39% of the variance in the dependent variables by the factors identified one is forced to conclude that the selection of the independent variables or the actual assessment of the moral factors was weak. As pointed out above it would have been possible to measure the moral factors used with standardized instruments previously developed. For example Schwartz(1968) and Natale(1972) have developed fairly reliable and valid measures of awareness of consequences and empathy. However these sorts of measures were ruled out due to the necessity of identifying and measuring causally operative factors in the subjects moral reasoning rather than abstract abilities which can not be shown to be operative in the reasoning being studied. Previous research has always made the unwarranted assumption that if a person has an ability, say in empathy, that this will always be operative in his thinking. This assumption has not been empirically established.Hopefully theproblems encountered in this exploratory attempt will be useful to others attempting to identify and measure the causally operative factors in moral reasoning.

Working with the data generated it would appear that empathy is the most significant variable influencing stage of moral reasoning. However the most frequently occuring independent variable in the regression equations(CMD) is age. In the case of stage of moral reasoning on the practical moral dilemmas age is not a significant predictor variable; instead the moral factors of EMP in MJPMD and AC in MDPMD account for all of the explained variance. Thus age is of less importance in determining stage of moral reasoningin situations which are within the subjects' life space than in situations which are not as familar to the sunbects. These findings are suggestive that stage of moral reasoning when dealing with classical moral dilemmas is more likely to be determined by developmental considerations than is stage of moral reasoning on practical moral dilemmas. For more information in support of this speculation see Leming(1974).

In attempting to predict choice, the biographical variables accounted for 6 of the 11 predictor variables in the regression equations. In the five cases where only one of the independent variables significantly correlated with choice, biographical variables accounted for all of the cases with the classical dilemmas and the moral factors accounted for all of the cases with the practical dilemmas. Thus on the classical moral dilemmas 5 of the 7 predictor variables were biographical. On the practical moral dilemmas 5 of the 9 predictor variables were biographical. A question suggested by the frequent occurance of the biographical variables in the regression equations is to what extent is the process of moral reasoning readily amenable to educational intervention. One feels compelled to ask this question since biographical factors are fixed abd the school has little or no way of influencing them directly. It would appear that if further research supports the construct of moral reasoning suggested by this research, educators may well have to begin to reassess the viability of programs oriented only toward in school rational activities. Previous research has been based on a

theoretical view of man as a rational and flexible organism. Behaviorists and Freudians have long cautioned educators about taking too simple a view of students in an educational setting. This exploratory inquiry suggests that perhaps their cautions should recieve some recognition. Research in the area of values education, like any form of empirical research, will progress only as long as it is based on a clear and sound theoretical basis which must include some fundamental psychological assumptions about Man. A needed area of future inquiry is to develop a clear and defensible view of man as a valuing organism and to begin to derive our experimental hypotheses from this theoretical perspective.

REFERENCES

Alston, W.P. "Comments on Kohlberg's 'From is to Ought'" In T. Mischel(Ed.) Cognitive Development and Epistemology. New York: The Academic Press, 1971.

Kohlberg, L. " The development of children's orientations toward a moral order: Sequence in the development of moral thought." Vita Humana, 1963,6, 11-33.

Kohlberg, L. "Issue scoring guide." Cambridge, Mass: Laboratory of human development, 1972, mimeo.

Kohlberg, L. "From is to ought: How to commit the naturalistic fallacy and get away with it in the study of moral development." In T. Mischel(Ed.) Cognitive Development and Epistemology. New York: The Academic Press, 1971

Leming, J. "Adolescent moral judgment and deliberation on classical and practical moral dilemmas." Unpublished doctoral dissertation: The University of Wisconsin-Madison, 1973.

Leming, J. "An empirical examination of key assumptions underlying the Kohlberg rationale for moral education." paper presented at annual meeting of the American Education Research Association: April, 1974.

Peters, R.S. "Moral development: a plea for pluralism." In T. Mischel(Ed.) Cognitive Development and Epistemology. New York: The Academic Press, 1971.

Natale, S. An Experiment in Empathy. England: NFER Publishing Co., 1972

Schwartz, S. "Awareness of Consequences and the influence of moral norms on interpersonal behavior." Sociometry, 1968, vol. 31, 355-369.

Wilson, J. et. al. Introduction to Moral Education. Baltimore: Penguin Books, 1967.

Wilson, J. The Assessment of Morality. England: NFER Publishing Co., 1973.